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CR 2000 (2) CARDIFF



ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE

CARDIFF PORT SANITARY AUTHORITY

For the Year 1926.

Printed by order of the Sanitary Authority.

CARDIFF:
C. WAKEFORD AND SONS, EAST CANAL WHARF

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Cardiff Port Sanitary Authority.

PREFACE.

As a result of the coal strike the traffic at the docks during 1926 was the lowest on record for many years. This has been associated with a corresponding decline in the number of cases of infectious disease imported.

The routine work of inspection of vessels and rat destruction has been, if anything, more thorough because of the increase of time available for this branch of the work, and, in particular, the machinery for preventing access to the country of plague-infected rats has been tightened up.

Dr. Simpson's departure from Cardiff is a loss to the Department, but it has to be recorded with gratitude that his successor, Mr. Matheson, has readily consented to continue the examination of rats submitted to him and his report for 1926, in a somewhat extended form, appears on page 20.

RALPH M. F. PICKEN.

31, Loudoun Square,

Cardiff, *14th March, 1927*

Section I.

TRAFFIC AT THE PORT.

The following tables give particulars of vessels and tonnage, foreign and coastwise, entering the Cardiff Port Sanitary District, compiled partly from the records of the Department and partly from information kindly supplied to me by H.M. Collector of Customs, and show the number of those inspected, the number found defective, their nationality, etc.

TABLE I.
NUMBER OF VESSELS AND TONNAGE
(Including Penarth).

YEARS	NUMBER OF VESSELS		Total number of vessels foreign and coastwise	TONNAGE		Total tonnage foreign and coastwise inwards
	Foreign	Coastwise		Foreign	Coastwise	
Average						
1901-10	2,741	8,982	11,723	3,206,425	3,072,287	6 278,712
1911-20	3,433	6,823	10 256	3,674,015	3,272,709	6,946,724
1921	1,656	5,042	6,698	2,066,973	1,689,474	3,756,447
1922	2,818	5,356	8,174	3,437,294	2,342,461	5,779,755
1923	3,282	5,026	8,308	3,961,631	2,343,827	6,305,458
1924	3,424	5,145	8,569	3,689,057	2,352,124	6,041,181
1925	3,405	4,686	8,091	3,399,249	1,920,546	5,319,795
1926	2,204	3 517	5,721	2,208 168	1,218,551	3,426,719

TABLE II.
DETAILS OF VESSELS INSPECTED.

		No. of arrivals	Tonnage	Number inspected by		Number reported defective	Number of orders issued
				Medical officer	Sanitary inspector		
From foreign	Steamers ..	—	—	50	1,673	444	444
	Sailing ..	—	—	4	100	11	11
	Motor ..	—	—	3	42	1	1
	Fishing ..	—	—	—	389	—	—
	Total from Foreign	2,204	2,208,168	57	2 204	456	456
Coastwise	Steamers ..	—	—	25	1,897	141	141
	Sailing ..	—	—	6	171	1	1
	Motor ..	—	—	—	186	2	2
	Fishing ..	—	—	—	15	—	—
	Total coastwise ..	3,517	1,218,551	31	2,269	144	144
Total foreign and coastwise ..		5,721	3,426,719	88	4,473	600	600

TABLE III.

Monthly arrivals of vessels from foreign and coastwise dealt with by the Department during the year :

Month	From Foreign	Coastwise
January	273	305
February	250	256
March	344	297
April	265	241
May	157	115
June	151	145
July	107	147
August	111	127
September	103	125
October	116	135
November	106	132
December	221	244
TOTALS	2,204	2,269

TABLE IV.

Nationality of vessels inspected during the year.

NATIONALITIES	STEAM	SAIL	MOTOR	TOTAL
American	18	—	—	18
Belgian	23	—	—	23
British	3,062	183	200	3,445
Danish	74	—	3	77
Dantzic	1	—	—	1
Dutch	19	—	2	21
Ecuadorian	1	—	—	1
Finnish	5	—	—	5
French	194	86	16	296
German	67	—	3	70
Greek	62	—	—	62
Hungarian	4	—	—	4
Italian	32	—	—	32
Japanese	1	—	—	1
Latvian	6	—	—	6
Norwegian	192	2	2	196
Panama	1	—	—	1
Peruvian	2	—	1	3
Portuguese	24	—	—	24
Roumanian	4	—	—	4
Soviet	1	—	—	1
Spanish	92	—	—	92
Swedish	82	—	1	83
Yugo-slav	7	—	—	7
TOTALS ..	3,974	271	228	4,473

Tables V. and VI. which follow, show the quantity and nature of goods imported and exported during the year. The decline of exports associated with the maintenance in the tonnage of imports, of course, reflects the unprecedented reversal of things which occurred during the coal strike, when Cardiff became temporarily an importation centre for coal.

TABLE V.

IMPORTS AND EXPORTS.

Years.	Imports (tons and loads)	Exports (tons)	Total imports & exports (tons)
Average			
1911-20	1,879,138	12,372,330	14,251,468
1921	1,043,000	5,912,485	6,955,485
1922	1,561,622	10,659,227	12,220,849
1923	2,183,601	12,610,305	14,793,906
1924	2,141,486	11,367,604	13,509,090
1925	1,940,836	9,798,810	11,739,646
1926	2,003,654	4,358,411	6,362,065

TABLE VI,

PRINCIPAL PORTS AND PLACES TRADING WITH CARDIFF, AND NATURE OF TRADE.

Port or place.	Imports.	Port or place.	Exports.
Spain ..	Iron ore, pitwood, wine, onions and fruit.	All countries and local ports.	Coal.
France ..	Pitwood, potatoes, wine, apples, onions and canned goods.		Coke.
Canada ..	Grain, flour, fruit, dairy produce, canned goods, sugar, timber and cattle.		Patent fuel.
U.S. America ..	Grain, flour, fruit, dairy produce, canned goods and coal.		Flour.
Australia ..	Grain, frozen meat, canned goods, and dairy produce.		Iron and steel rails and ironwork.
Ireland ..	Grain, pitwood, potatoes, canned goods, stout, dairy produce and burnt ore.		General merchandise.
Local ports ..	Grain, flour, canned goods, dairy produce, burnt ore and pitch.		
North Africa ..	Iron ore.		
Baltic ports ..	Timber.		
Portugal ..	Pitwood, fruit and wine.		
River Plate ..	Frozen meat and grain.		

Section 2.

PREVENTION OF INFECTIOUS DISEASES. The tables in this section show, in accordance with the requirements of the Ministry of Health, the occurrence of cases of sickness of all kinds on board ships, arriving or otherwise, dealt with by the port sanitary staff, as well as those which definitely fall into the category of infections.

These cases are reported to the inspectors who board every vessel arriving. Warning messages are sometimes received from Lloyd's signal stations at Barry Island and Penarth, but there is no arrangement for receiving wireless intimations of approaching infectious disease. The nearest receiving station for wireless messages is Milford Haven, over one hundred miles distant.

Enquiries have continued as to the number of vessels carrying wireless installations, and these are shown in the following table:—

TABLE VII.

	Vessels arriving		Total
	From Foreign	Coastwise	
With Wireless	952	213	1,165
Without Wireless	462	196	658
Total	1 414	409	1,823

NOTE.—These figures do not include vessels under 500 tons N.R.T.

TABLE VIII.

NOTIFIABLE INFECTIOUS DISEASES SINCE 1917.

	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926
Chicken pox ..	—	—	—	—	—	—	—	1	—	—
Continued fever ..	—	—	—	2	2	—	—	—	—	—
Diphtheria ..	7	—	7	4	—	2	3	3	—	1
Dysentery ..	—	—	1	2	4	6	3	1	2	—
Erysipelas ..	8	—	3	5	1	3	5	—	3	—
Malaria ..	—	—	8	14	21	26	10	25	12	14
Measles ..	3	2	1	—	—	—	—	—	—	—
Pneumonia,										
Influenzal ..	—	—	14	5	3	5	—	—	—	1
" Primary ..	—	—	6	21	8	4	8	11	7	3
Relapsing fever ..	—	—	—	1	—	—	—	—	—	—
Scarlet fever ..	1	—	4	—	—	—	1	—	1	—
Smallpox ..	—	—	—	1	—	1	1	—	—	—
Tuberculosis ..	27	12	15	14	22	15	13	5	4	7
Typhoid fever ..	10	26	19	8	3	9	8	3	6	1
Totals ..	56	40	78	77	64	71	52	49	35	27

Three cases of measles were dealt with, bringing the total of strictly port cases for the year to 30.

In addition to the 30 cases recorded above, a number of seafaring men suffering from infectious diseases were dealt with by the port sanitary staff, who were ascertained after enquiry to fall properly within the province of urban administration.

The following 18 cases were referred for this reason to their respective districts, viz. :—

TABLE IX.

	CARDIFF CITY	BARRY	NEWPORT
Measles	1	—	—
Malaria	2	1	—
Pneumonia	1	2	—
Tuberculosis ..	4	5	1
Typhoid Fever ..	—	1	—
Totals .	8	9	1

TABLE X (a).

DETAILS OF CASES OF NOTIFIABLE INFECTIOUS DISEASES.

Year 1926	Name of ship and nationality	Where from and nature of sickness	General particulars
Jan. 9	s.s. "Asgerd" (Norwegian)	Vigo (Tuberculosis)	A sailor medically attended on arrival; treated on board and sailed in the ship for his home in Norway.
" 13	s.s. "Portgwarra" (British)	River Plate <i>via</i> Hamburg (Dysentery)	A sailor sent to hospital at Hamburg. Water tanks emptied and cleansed at this port.
" 16	s.s. "Maurice Bernard" (French)	Bordeaux <i>via</i> Port Talbot (Malaria)	A sailor medically attended on arrival and sent to the Seamen's Hospital.
" 27	s.s. "Osbur" (Swedish)	Carthagen <i>via</i> Bristol (Tuberculosis)	A sailor sent to hospital on arrival at Bristol.
Feb. 1	s.s. "Whitegate" (British)	Bahia Blanca <i>via</i> St. Vincent, C.V., and London (Enteric fever)	The first officer landed and sent to hospital at St. Vincent, C.V., whilst on passage to London.
" 8	s.s. "Medmenham" (British)	Novorossisk <i>via</i> Gibraltar (Typhoid fever)	An apprentice belonging to s.s. "Molesey" landed and sent to hospital at Novorossisk with typhoid fever. Recovered and joined the s.s. "Medmenham."
" 9	s.s. "Milton" (British)	Buenos Aires <i>via</i> Amsterdam (Typhoid fever)	The donkeyman sent to hospital at Durban the previous voyage and rejoined ship. His room disinfected and water tanks emptied and cleansed at Durban.
" 18	s.s. "Maud Llewellyn" (British)	Lisbon (Tuberculosis)	A sailor sent to hospital on arrival at Lisbon.
" 21	s.s. "La Norvege" (Norwegian)	Bilbao (Pneumonia and typhoid fever)	The second engineer reported sick on arrival; medically attended and removed to the Seamen's Hospital, subsequently developing typhoid fever. His berth disinfected and sample of drinking water submitted for analysis. Result—satisfactory.
" 22	s.s. "Starkad" (Norwegian)	Bordeaux (Malaria)	The donkeyman medically attended on board and subsequently sent home to Norway.
" 23	s.s. "British Transport" (British)	Buenos Aires <i>via</i> St. Vincent, C.V., and Antwerp (Typhoid fever)	The cook medically attended on arrival at Antwerp and sent to hospital. Sample of drinking water submitted for analysis at this port. Result—satisfactory.
" 24	s.s. "Notanda" (British)	Genoa (Malaria)	A sailor suffering from a slight attack of malaria. Treated on board.
" 26	s.s. "Dalmazia" (Italian)	Savona (Tuberculosis)	The wireless operator medically attended on arrival; treated on board and sailed for home in the ship.
Mar. 1	s.s. "Ruth" (British)	Kinsale (Pneumonia)	The chief engineer medically attended and treated on board, where he died.
" 2	s.s. "Settler" (British)	Galveston <i>via</i> Liverpool (Malaria)	A sailor medically attended on arrival and sent to the Seamen's Hospital.
" 9	s.s. "Luciline" (British)	Seville (Tuberculosis)	A sailor medically attended on arrival and removed to the Seamen's Hospital.

TABLE X (a)—*continued.*

Year 1926	Name of ship and nationality	Where from and nature of sickness	General particulars
Mar. 26	s.s. "Vesta" (Norwegian)	Carthage <i>via</i> Manchester (Malaria)	Seven members of crew were medically attended and treated on board whilst in port. Search was made for mosquitoes or larvae. Nothing found.
„ 31	s.s. "Antonio" (British)	Hamburg (Tuberculosis)	A fireman sent to the Seamen's Hospital on arrival.
April 12	s.s. "Warri" (British)	Secondee <i>via</i> Maryport (Malaria)	The carpenter suffering from a slight attack of malaria. Proceeded to his home at Hull.
„ 12	s.s. "Whale" (Norwegian)	Tonsberg (Tuberculosis)	A fireman medically attended and treated on board, subsequently sent home to Norway.
„ 12	s.s. "New Toronto" (British)	Lagos <i>via</i> Hamburg and Hull (Malaria)	The first engineer medically attended and treated on board. Sailed in vessel.
„ 19	s.s. "Brora" (British)	Glasgow <i>via</i> Belfast (Pneumonia)	A fireman medically attended on arrival and sent to the Seamen's Hospital.
„ 19	s.s. "Cornish City" (British)	Vancouver, B.C., <i>via</i> Norfolk, Va., and London (Smallpox)	Four members of crew suffered from smallpox whilst at Vancouver. One member died.
„ 20	s.s. "Sneaton" (British)	Perim, Port Said, Algiers <i>via</i> Rotterdam and Dunkirk (Malaria)	Several members of crew suffered from malaria during voyage. An apprentice sent to hospital at Port Said and a sailor paid off at Rotterdam. All well on arrival here.
May 3	s.s. "Petrarca" (Italian)	Gravosa (Pneumonia)	A fireman medically attended and removed to the Seamen's Hospital.
„ 5	H.M. Submarine "H.24"	— (Diphtheria suspected)	A member of crew removed to the City Sanatorium for observation.
June 19	s.s. "Canadian Victor" (British)	Montreal <i>via</i> Quebec (Pneumonia)	A fireman died from pneumonia and buried at sea whilst on passage to this port. All well on arrival.
July 5	Mtr. "Ferndale" (Norwegian)	Portland, Oregon (Tuberculosis of bowels)	A sailor medically attended on arrival and subsequently sent home to Norway.
July 8	s.s. "Southwell" (British)	Llanelly <i>via</i> Trevor (Pneumonia)	A sailor sent to hospital at Llanelly.
„ 12	s.s. "Hoxie" (American)	New York <i>via</i> Cork (Influenzal pneumonia)	A fireman medically attended on arrival and removed to the Seamen's Hospital.
Sept. 23	s.s. "Bedefell" (British)	Fowey <i>via</i> Portland Maine (Tuberculosis)	The donkeyman died whilst on passage to Portland Maine and was buried at that port.
Oct. 8	s.s. "Boverton" (British)	Baltimore <i>via</i> Viborg and Kiel (Tuberculosis)	The first engineer sent to hospital at Baltimore, where he died.
Nov. 8	s.s. "Bardistan" (British)	Basra <i>via</i> Port Said and London (Malaria)	Two firemen medically attended and one subsequently removed to the Seamen's Hospital.

TABLE X (a)—*continued*.

Year 1926	Name of ship and nationality	Where from and nature of sickness	General particulars.
Nov. 25	s.s. "Hillfern" (British)	West African Ports <i>via</i> Philadelphia and Dublin (Typhoid fever)	The boatswain left in hospital at St. Vincent, C.V. (on outward passage). Berth and effects disinfected at that port.
Dec. 13	s.s. "Canadian Conqueror" (British)	Montreal <i>via</i> Quebec (Malaria)	A sailor medically attended and sent to the Seamen's Hospital.
,, 17	s.s. "Forestbeech" (British)	Belfast <i>via</i> San Esteban de Pravia (Pneumonia)	The steward sent to hospital at Belfast, where he died.
,, 20	s.s. "Fanefjeld" (Norwegian)	Burriana <i>via</i> Liverpool (Tuberculosis)	A sailor medically attended on arrival and subsequently sent to his home in Norway.

TABLE X (b).

DETAILS OF CASES OF NON-NOTIFIABLE DISEASES.

Year 1926	Name of ship and nationality	Where from and nature of sickness	General particulars.
Jan. 8	s.s. "Sunray" (British)	Naples (Rheumatism)	A fireman sent to hospital at Naples.
,, 9	s.s. "Maria Antonia" (Spanish)	Algiers <i>via</i> Newport (Bronchial catarrh and orchitis)	A sailor medically attended on arrival (bronchial catarrh); also one sailor suffering from orchitis. Hospital treatment recommended.
,, 9	s.s. "King Malcolm" (British)	Glasgow (accident)	An apprentice accidentally killed whilst on passage to this port.
,, 13	s.s. "Wearpool" (British)	Vancouver, B.C., <i>via</i> Falmouth (Rheumatism)	A fireman sent to hospital at Vancouver, B.C.
,, 20	s.f. "Settsu" (British)	Fishing Grounds (Ulcerated stomach)	The boatswain medically attended on arrival and removed to his home.
,, 20	s.s. "Llangollen" (British)	Marseilles (Rheumatism)	A fireman medically attended on arrival and sent to the Seamen's Hospital.
,, 27	s.s. "Luhe" (German)	Dantzic (Orchitis)	A fireman suffering from orchitis. Hospital treatment recommended.
,, 30	s.s. "Pilton" (British)	Spezia (Asthma)	A fireman medically attended whilst at Spezia, also on arrival here and sent to the Seamen's Hospital.
Feb. 4	Mtr. "Husvik" (Peruvian)	Naskov (Heart disease)	The cook medically attended and removed to the Seamen's Hospital.
,, 4	s.s. "Burriana" (British)	Bordeaux (Syphilis)	A sailor reported to be suffering from syphilis. Hospital treatment recommended.
,, 4	s.s. "Middleham Castle" (British)	Port Pirie <i>via</i> Carthage (Heart disease)	One member of crew died and was buried at sea on passage to Carthage.

TABLE X (b)—*continued*.

Year 1926	Name of ship and nationality	Where from and nature of sickness	General particulars
Feb. 8	s.s. " Jacobus " (British)	Bayonne (Ulcerated stomach)	A fireman medically attended on arrival and proceeded to his home.
" 8	s.s. " Frances Duncan " (British)	Nantes (Gastritis)	A sailor sent to hospital at Nantes.
" 13	s.s. " Kentish Coast " (British)	Plymouth (Cold)	The first engineer medically attended and proceeded to his home.
" 17	s.s. " P.L.M. 13 " (French)	Rouen (Pleurisy)	The second officer medically attended and removed to the Seamen's Hospital.
" 19	s.s. " Roseric " (British)	Cuba <i>via</i> Marseilles (Appendicitis, paralysis, and lung trouble)	Three members of crew died during voyage. The Master, appendicitis; cook, paralysis; and one fireman, lung trouble. Remainder of crew all well on arrival.
" 22	s.s. " Carl Gerhard " (Swedish)	Burriana <i>via</i> Liverpool (Cystitis)	The first officer medically treated at Liverpool, also at this port.
March 1	s.s. " Oscar Gorthon " (Swedish)	Bordeaux (Phlebitis)	The cook medically attended and treated on board.
" 3	s.s. " Aslak " (Norwegian)	Swansea (Inflammation of bladder)	A fireman medically attended and sent to the Seamen's Hospital.
" 5	s.s. " Hesbaye " (Belgian)	Dublin (Cold)	A fireman medically attended and sent to hospital at Dublin.
" 6	s.s. " Inneroy " (Norwegian)	Plymouth (Alcoholic poisoning)	The master medically attended on arrival and removed to a nursing home.
" 9	s.s. " River Dart " (British)	Garston (Pleurisy)	A sailor medically attended on arrival and proceeded to his home.
" 11	s.s. " Fiumana " (Italian)	Rotterdam (Orchitis)	A fireman medically attended on arrival and hospital treatment recommended.
" 11	s.s. " Vendemiaire " (British)	Bordeaux (Gastritis)	A fireman medically attended on arrival and removed to the Seamen's Hospital.
" 18	s.s. " Flowergate " (British)	Rosario <i>via</i> Dunkirk and Antwerp (Heart disease)	The master medically attended and sent to hospital at Rosario, where he died.
" 21	s.s. " Chulmleigh " (British)	Bahia Blanca <i>via</i> Liverpool (Heart disease)	One member of crew left in hospital at Bahia Blanca.
" 23	s.s. " Notanda " (British)	Bordeaux (Sciatica)	The steward medically attended and treated on board.
25	s.s. " Antigone " (British)	Liverpool (Gastric ulcer)	A sailor medically attended and sent to hospital at Liverpool.
26	s.s. " City of Bristol " (British)	Fremantle <i>via</i> Durban and Cape Town (Stoppage of bowels and bronchitis)	The fourth engineer (stoppage of bowels) and the wireless operator (bronchitis) left in hospital at Durban.

TABLE X (b)—*continued*.

Year 1926	Name of ship and nationality	Where from and nature of sickness	General particulars
Mar. 27	s.s. "Recca" (Italian)	London (Tonsillitis)	The master medically attended on arrival and treated on board.
" 28	s.s. "Thistleben" (British)	Cette (Heart disease)	A sailor medically attended on arrival and proceeded to his home.
" 29	s.s. "Orvieto" (Italian)	Venice <i>via</i> Gibraltar (Rheumatism)	A sailor medically attended and treated on board.
" 30	s.s. "Sudbury" (British)	Genoa and Sfax <i>via</i> Ghent (Influenza and lumbago)	The master medically attended and sent to hospital at Genoa.
April 9	s.s. "Recca" (Italian)	London (Bronchitis)	A fireman medically attended and removed to the Seamen's Hospital.
" 9	s.s. "Luciston" (British)	Wallaroo <i>via</i> Falmouth and Avonmouth (Asthma)	A fireman landed and sent to hospital at Falmouth.
" 16	s.s. "Berwindmoor" (British)	Savannah <i>via</i> Rotterdam (Heart disease and dropsy)	A fireman died and was buried at sea whilst on passage to Rotterdam.
" 16	s.s. "Uskbridge" (British)	Savona (Bright's disease)	The cook medically attended on arrival and sent to his home at Cardiff.
" 19	s.s. "Baron Jedburgh" (British)	Rangoon, Colombo, Suez, Alexandria, Trieste, and Algiers (Venereal disease)	The donkeyman suffering from venereal disease. (Vessel was detained at Trieste for bubonic plague. Blood tests made; result—negative. Vessel fumigated: six dead rats found and examined; no trace of plague.
" 19	s.s. "Albuera" (British)	Bona <i>via</i> Dublin and Barry (Measles)	A sailor sent to the Seamen's Hospital. Removed to City Sanatorium.
" 20	s.s. "Trevider" (British)	Buenos Aires <i>via</i> London (Gastritis)	A sailor sent to hospital at Buenos Aires. Rejoined ship and went to his home at London.
" 21	s.s. "Simonside" (British)	— (Measles)	A sailor admitted to the Seamen's Hospital. Forthwith removed to the City Sanatorium.
" 24	s.s. "Tirreno" (Italian)	Genoa (Appendicitis)	The second officer medically attended and removed to the Seamen's Hospital.
" 24	s.s. Paddington" (British)	La Rochelle (Cold)	A sailor medically attended on arrival and treated on board.
" 28	s.s. "Spica" (Norwegian)	Barrow (Debility)	A sailor medically attended on arrival.
May 6	s.s. "Ben Vrackie" (British)	Dublin (Rheumatism)	The first officer sent to hospital at Dublin, recovered and rejoined ship. All well on arrival.
" 10	s.s. "Hendaye" (French)	— (Broncho- pneumonia)	The cook medically attended and removed to the Seamen's Hospital, where he died. (From Barry.)

TABLE X (b)—continued.

Year 1926	Name of ship and nationality	Where from and nature of sickness	General particulars
May 16	s.s. "Wheatblade" (British)	Cardigan (Appendicitis)	A sailor medically attended on arrival and sent to the Seamen's Hospital.
„ 17	s.s. "Koranton" (British)	Port Said (Influenza)	A fireman medically attended on arrival.
June 5	s.s. "Porthia" (British)	Bahia Blanca <i>via</i> Gibraltar & Genoa (Bright's disease)	A fireman left in hospital at Gibraltar.
„ 5	s.s. "Ravensworth" (British)	Rouen (Venereal disease)	A fireman medically attended on arrival and sent to the Seamen's Hospital.
July 6	s.s. "Joseph Magne" (French)	Emden (Acute eczema)	A sailor removed to City Lodge Hospital for treatment. Rejoined ship. His berth disinfected.
„ 6	s.s. "Highland Coast" (British)	Bristol (Ruptured urethra)	A sailor medically attended on arrival, having met with an accident. Removed to the Seamen's Hospital.
„ 11	s.f. "Asama" (British)	Fishing Grounds (Lumbago)	A fireman put on shore at Barry on passage to Cardiff and sent to the Seamen's Hospital.
„ 27	s.s. "Gaelic Prince" (British)	Newport News (Septic toe)	The cook medically attended and sent to the Seamen's Hospital.
„ 29	s.s. "Canadian Mariner"	Montreal (Venereal disease)	The cook suffering from V.D. Hospital treatment recommended.
Aug. 5	s.s. "Trevilley" (British)	Hull <i>via</i> Santos, St. Vincent, C.V., Genoa, and Oran (Heart disease)	The donkeyman taken ill and died whilst on passage to Santos. Buried at sea.
„ 31	s.s. "Grainton" (British)	Galveston (Syncope)	The chief officer found dead in his berth whilst in this port. Inquest held.
Sept. 6	s.s. "Slavic Prince" (British)	Norfolk Va. (Heart disease)	A sailor medically attended and removed to the Seamen's Hospital.
„ 14	s.s. "Lovland" (Norwegian)	Emden (Jaundice)	An assistant steward medically attended and treated on board.
„ 14	s.s. "Hoxie" (American)	Cork (Pleurisy)	A fireman medically attended and removed to the Seamen's Hospital.
„ 28	s.s. "Tremeadow" (British)	Antwerp (Mental trouble)	A fireman medically examined on arrival and removed to the City Lodge Hospital.
Oct. 2	s.s. "Wheatblade" (British)	Rosslare (Cholecystitis)	A sailor medically attended on arrival and removed to the Seamen's Hospital.
„ 8	s.s. "Chiswick" (British)	Norfolk Va. (Jaundice)	The third officer medically attended on arrival and allowed to proceed to his home at Glasgow.
„ 13	s.s. "Bournemouth" (British)	Philadelphia (Rheumatism)	A sailor medically attended on arrival and allowed to proceed to his home.
„ 15	Mtr. "Strassa" (Swedish)	Portland, Oregon <i>via</i> Panama (Gastritis)	Two members of the crew medically attended on board.

TABLE X (b)—*continued*.

Year 1926	Name of ship and nationality	Where from and nature of sickness	General particulars
Oct. 23	s.s. "Canadian Leader" (British)	Montreal (Heart disease)	A sailor medically attended on arrival and removed to the Seamen's Hospital.
Nov. 1	s.s. "Kingsdon" (British)	Stettin (Abscess in neck)	The first engineer medically attended on arrival.
" 2	s.s. "Severin" (Swedish)	Kiel (Hernia)	A fireman medically attended on arrival and sent to the Seamen's Hospital.
" 5	s.s. "Rhymney" (British)	Baltimore (Hernia)	A sailor medically attended on arrival and allowed to proceed to his home.
" 12	"Bessie" (British)	Lying in the Glamor- ganshire Canal (Measles)	An infant (2 years) suffering from measles. Removed to the City Sanatorium.
" 18	s.s. "Fendris" (British)	Hamburg (Rheumatism)	A fireman medically attended on arrival and sent to the Seamen's Hospital.
" 25	s.s. "Hillfern" (British)	West African Ports <i>via</i> Philadelphia and Dublin (Rheumatic fever)	A fireman sent to hospital at Dakar. Recovered and rejoined ship. All well on arrival here.
Dec. 2	s.s. "Ora" (Norwegian)	Lubeck (Mumps)	A sailor medically attended and treated on board.
" 3	s.s. "Olaf Kyrre" (Norwegian)	Baltimore (Synovitis)	A fireman medically attended whilst in port.
" 9	s.s. "Friedrich Jurgen" (German)	Sharpness (Cold)	A sailor medically attended whilst at this port.
" 15	s.s. "Mrav" (Yugo Slav)	Norfolk Va. (Colds)	Two members of crew medically attended whilst in port.
" 17	s.s. Canadian Leader" (British)	Halifax, N.S. (Debility)	A fireman medically attended whilst in port.
" 19	s.s. "Eusebia Del Valle" (Spanish)	London (Debility)	Three members of crew medically attended whilst in port.
" 19	s.s. "Ophir" (Norwegian)	London (Pulmonary- catarrh)	A fireman medically attended and allowed to proceed to his home in Norway.
" 20	s.s. "Federiko Glavic" (Yugo Slav)	Philadelphia (Anaemia)	An assistant engineer medically attended whilst in port.
" 24	s.s. "Luksefjell" (Norwegian)	Bayonne (Colds)	The first officer and first engineer medically attended whilst in port.
" 29	s.s. "P.L.M. 17" (French)	Rouen (Influenza)	A sailor medically attended and sent to the Seamen's Hospital.

TABLE X (b).—*continued.*

Year 1926	Name of ship and nationality	Where from and nature of sickness	General particulars.
Dec. 30	s.s. " Danefelt " (Danish)	Dantzic (Kidney trouble)	The first officer medically attended and allowed to proceed to his home in Denmark.
„ 31	s.s. " Carolinian " (American)	Baltimore (Broken leg)	A sailor removed to the Seamen's Hospital on arrival.

PRECAUTIONS AGAINST CHOLERA, PLAGUE AND YELLOW FEVER.—No vessel required to be dealt with in accordance with the regulations of the Local Government Board of the 9th September, 1907.

HOSPITAL ACCOMMODATION.—The hospital at Flat Holm Island, where accommodation is provided for sixteen patients suffering from cholera, yellow fever or plague, and for staff, administration, cremation, etc., has not been in use during the year. It has, however, been kept in good order and readiness for use in any emergency.

RATS AND MICE (DESTRUCTION) ACT, 1919.—Continuous inspection was made and measures taken on and around the docks, premises, lands etc., during the year under the Rats and Mice (Destruction) Act, 1919, and as the result of baiting with poisons, 6623 rats and 1852 mice, were found dead.

During the year the ratcatcher was engaged on 55 vessels and on 52 occasions in warehouses on the docks and the total number of rats caught and subsequently destroyed amounted to 2,536 and mice 25.

Enquiries are made on board every vessel arriving as to the presence of rats or as to abnormal infestation or unusual mortality among them. Twenty vessels were reported on arrival to be rat-infested. These vessels were inspected by day inspectors and in 17 cases infestation was confirmed. In addition 53 other vessels were found upon inspection to be rat-infested although reported to be rat free on arrival.

Forty-two notices were served on masters of vessels under the above act. Twenty three vessels were fumigated and 575 rats and 18 mice found dead as the result. In addition three vessels were treated with poison baits (not included above).

The bacteriologist (Dr. Parry Morgan) examined 338 rats caught on vessels or in warehouses for evidence of plague, the result being negative in each case; while 320 rats were examined for classification and for the purpose of identification of the fleas infesting them, by Dr. Simpson, Keeper of Zoology, and his successor Mr. Matheson, whose report is included in this section.

The following tables show in detail the results of the measures taken and of the examinations made.

FUMIGATION OF PLAGUE INFECTED OR SUSPECTED VESSELS.

The procedure for dealing with plague infected or suspected ships on arrival at Cardiff has been the subject of serious consideration during the year. The mooring station for such vessels is situated in a very exposed part of the channel, near the Flatholm. This situation was chosen at a time when the human factor in the spread of infection was regarded as of paramount importance, and the evacuation of patients or contacts, although difficult, is not impossible at the mooring station. We now know, however, that the infected rat is probably a greater danger to the community than the plague patient, and the unloading of cargo with its opportunities for the escape of rats, has become the most important question in relation to this disease. It is certain that unloading would rarely be possible in any exposed part of the Bristol Channel because of the strength of the currents and the strong winds which blow on most days in the year. On the other hand, the risk of bringing a plague vessel into dock would be considerable, no matter how careful precautions were taken to prevent the escape of rats.

It would seem, therefore, that fumigation of the unloaded vessel for the destruction of rats would be imperative, no matter what type of cargo the vessel carried. This might be done at the mooring station or in some more sheltered part of the channel or, in exceptional circumstances, even in the middle of one of the dock basins. In relation to this question the influence of fumigants on food cargoes obviously arose. In our view hydrogen cyanide, as applied by a firm who have carried out fumigations in Cardiff, is the simplest and most effective fumigant, and it was determined to experiment with this gas in order to ascertain if it had any deleterious influence on foodstuffs.

In the experiment which was carried out on 10th May, 1926, we had the hearty co-operation of Dr. Simpson, late Keeper of Zoology at the Welsh National Museum, who put a fumigation chamber and one of the staff at our disposal. The chamber had a capacity of 134 cub. ft. and a concentration of 0.3 per cent. of hydrogen cyanide gas was gradually attained during the experiment. Three rats in a cage were introduced in order to test the effect of the fumigant, and at the same time the following articles of food were exposed, viz., wheat, rice, sugar, flour, cheese, apples, potatoes and oranges. These were slightly moistened in order to simulate, as far as possible, the conditions sometimes existing in the holds of vessels and because it was thought that the chance of absorption of the lethal gas would be thereby increased. The reagents were mixed and the chamber closed at 10 a.m. In half-an-hour the fan was turned on to facilitate diffusion of the gas in the chamber. At 10.45 all three rats were dead. At 5 p.m. the chamber was opened and the extraction of all gas by the fan allowed to go on until the following morning, when all the foodstuffs were conveyed to the Public Analyst's laboratory. On 13th May, Mr. Hughes reported as follows :—

“ I have examined the wheat, rice, sugar, flour, cheese, apples, potatoes and oranges submitted to fumigation on the 10th inst.

“ Although the wheat, rice, sugar and especially the flour had a faint odour of prussic acid none could be chemically detected. It is of course obvious that an article may be faintly scented and yet not contain any appreciable amount of the odorous substance.

“ The skins, or parings, of the apples, potatoes and oranges were submitted to examination, but no trace of prussic acid could be detected. The cheese, also, was found to contain no trace. Chemically all the results of the examination of these foodstuffs for hydrogen cyanide were negative.

“ Three rats, received from Chief Inspector Holbourn, have been fed with wheat, rice, sugar, flour, cheese and potatoes, all of which articles they have freely eaten, but seem to have suffered no harm whatever, and they have now been 48 hours under this treatment.

“ I should think that these foods were submitted to the fumigation test under rather severe conditions, and the results having been found negative there does not seem to be any likelihood of foodstuffs becoming appreciably contaminated with hydrogen cyanide under like conditions.”

This result is what we expected, but its demonstration, under carefully controlled conditions, puts us in the position of being able to assure owners and consignees that the procedure of fumigation before food cargoes are unloaded is safe and without deleterious influence on various kinds of foodstuff.

REPORT ON RATS AND THEIR PARASITIC FLEAS FROM SHIPS AND DOCKS AT CARDIFF.

By COLIN MATHESON, M.A., B.Sc., *Keeper of Zoology, National Museum of Wales.*

Sixty-three lots of rats were received between February 1st, 1926, and December 31st, 1926. Forty-nine of these lots were from ships, thirteen from warehouses at the docks, and one from other premises at the docks. The identifications of these, and of their parasitic fleas, are tabulated below.

C. — *Ceratophyllus*.

X. — *Xenopsylla*.

L. — *Leptopsylla*.

TABLE 1.—SHIPS

Origin Name of ship and where from	<i>Rattus rattus rattus</i>	<i>Rattus rattus alexan- drinus</i>	<i>Rattus rattus frugi- vorus</i>	<i>Rattus norveg- icus</i>	Fleas	Date
s.s. "Gardelaki" Braila, Vigo and Waterford	14	2	9	—	<i>C. fasciatus</i>	3-2-26
s.s. "Tuskar Light" Mariupol and Rouen	3	4	—	—	<i>C. fasciatus</i>	3-2-26
s.s. "Inhambane" La Plata and Liverpool	1	—	—	—	—	4-2-26
s.s. "Gardelaki" Braila, Vigo and Waterford	6	—	4	—	<i>C. fasciatus</i>	4-2-26
s.s. "Inhambane" La Plata and Liverpool	2	—	3	—	—	8-2-26
s.s. "Tremayne" Tyne and Spezia	5	1	1	—	<i>C. fasciatus</i>	8-2-26
s.s. "Cardiff" Buenos Ayres and Dunkirk	2	3	1	—	—	12-2-26
s.s. "Cardiff" Buenos Ayres and Dunkirk	6	—	—	—	<i>C. fasciatus</i>	13-2-26
s.s. "British Transport" Buenos Ayres and Antwerp	6	—	1	—	<i>X. cheopis</i>	27-2-26
s.s. "Pandelis" Varna, Esbjerg and Aarhus	3	1	1	—	<i>C. fasciatus</i>	10-3-26
s.s. "Llanberis" Marseilles	9	—	—	—	<i>C. fasciatus</i> <i>X. cheopis</i>	10-3-26
s.s. "Pandelis" Varna, Esbjerg and Aarhus	—	1	—	4	—	11-3-26
s.s. "Hendaye" Nantes	2	—	—	—	<i>X. cheopis</i>	12-3-26
s.s. "Novington" Barry and Savona	—	—	—	1	<i>X. cheopis</i>	16-3-26
s.s. "Herschel" Bahia and Rio de Janeiro	1	—	—	1	<i>C. fasciatus</i>	16-3-26

TABLE I. SHIPS—(continued).

Origin Name of ship and where from	Rattus rattus rattus	Rattus rattus alexan- drinus	Rattus rattus frugi- vorus	Rattus norvegicus	Fleas	Date
s.s. "Norburn" Pauillac	1	1	—	—	—	19-3-26
s.s. "Antonios Vrondisis" Braila, Gibraltar and Sligo	9	—	—	—	—	19-3-26
s.s. "Norburn" Pauillac	—	2	—	—	—	23-3-26
s.s. "Jupiter" Bahia Blanca and Rotterdam	5	—	2	—	—	24-3-26
s.s. "Jupiter" Bahia Blanca and Rotterdam	5	—	—	—	—	25-3-23
s.s. "Jupiter" Bahia Blanca and Rotterdam	5	—	1	—	C. fasciatus X. cheopis	26-3-26
s.s. "Pandelis" Varna, Esbjerg and Aarhus	—	—	—	1	C. fasciatus	27-3-26
s.s. "Pandelis" Varna, Esbjerg and Aarhus	—	—	—	3	L. segnis	29-3-26
s.s. "Jupiter" Bahia Blanca and Rotterdam	5	—	1	—	—	29-3-26
s.s. "Maria N. Roussos" La Plata and St. Vincent	6	—	—	—	C. fasciatus X. cheopis	15-4-26
s.s. "Maria N. Roussos" La Plata and St. Vincent	6	1	1	—	X. cheopis	20-4-26
s.s. "Warri" Sekondi and Maryport	1	4	1	—	C. fasciatus X. cheopis	20-4-26
s.s. "Notanda" Bordeaux	1	—	—	—	C. fasciatus	21-4-26
s.s. "Maria N. Roussos" La Plata and St. Vincent	3	4	—	—	X. cheopis	22-4-26
s.s. "Maria N. Roussos" La Plata and St. Vincent	4	—	1	—	C. fasciatus X. cheopis	23-4-26
s.s. "Harrington Court" Sydney (Aus) Las Palmas & Lisbon	3	—	—	—	—	27-4-26
s.s. "North Anglia" La Plata, St. Vincent & Antwerp	5	—	4	—	—	29-4-26
s.s. "North Anglia" La Plata, St. Vincent & Antwerp	2	1	—	—	—	30-4-26
s.s. "North Anglia" La Plata, St. Vincent & Antwerp	1	—	2	—	—	15-5-26
s.s. "Conde de Abasolo" Bilbao	1	—	—	—	—	22-6-26

TABLE I. SHIPS—(continued)

Origin Name of ship and where from	Rattus rattus rattus	Rattus rattus alexan- drinus	Rattus rattus frugi- vorus	Rattus norveg- icus	Fleas	Date
s.s. "Truth" Port Alfred (Canada)	2	1	—	—	C. fasciatus X. cheopis	9-9-26
s.s. "Lynntown" Dublin & Antwerp	1	—	1	—	C. fasciatus	7-10-26
s.s. "Oxonian" Baltimore	3	—	2	—	C. fasciatus	9-11-26
s.s. "Oxonian" Baltimore	1	—	1	—	C. fasciatus	10-11-26
s.s. "Stratis" Theodosia, London & Baltimore	—	—	—	30	C. fasciatus X. cheopis	24-11-26
s.s. "Bradburn" Liverpool and Norfolk, Va.	11	3	3	—	X. cheopis	25-11-26
s.s. "Stratis" Theodosia, London & Baltimore	—	5	—	2	C. fasciatus X. cheopis	26-11-26
s.s. "Wotan" Newcastle and Norfolk, Va.	—	—	1	—	X. cheopis	1-12-26
s.s. "Unbe Mendi" London and Baltimore	6	1	8	—	C. fasciatus	3-12-26
s.s. "Unbe Mendi" London and Baltimore	3	1	1	—	X. cheopis	4-12-26
s.s. "Unbe Mendi" London and Baltimore	—	1	—	—	—	6-12-26
s.s. "Stratis" Theodosia, London & Baltimore	—	—	—	1	C. fasciatus X. cheopis	6-12-26
s.s. "Ardmore" Cork and Fishguard	—	1	—	—	—	7-12-26
s.s. "Gorbea Mendi" London and Newport News	6	—	—	—	C. fasciatus	8-12-26

TABLE II.—RATS FROM WAREHOUSES AND OTHER PREMISES ON THE DOCKS.

QUEEN ALEXANDRA DOCK.

Origin			Rattus rattus rattus	Rattus rattus alexan- drinus	Rattus rattus frugi- vorus	Rattus norveg- icus	Fleas	Date
"C" Warehouse	..	..	1	—	—	—	C. fasciatus	.. 4-2-26
"G" do.	..	..	3	—	—	—	—	.. 11-2-26
"A" do.	..	..	2	1	2	—	—	.. 11-5-26
"B" do.	..	..	1	—	1	—	—	.. 28-5-26
"C" do.	..	..	1	—	1	—	C. fasciatus	.. 27-7-26
"C" do.	..	..	—	1	1	—	C. fasciatus	.. 29-7-26

ROATH DOCK.

"N" Warehouse	..	..	2	—	1	—	—	2-6-26
"W" do.	..	..	2	—	2	—	C fasciatus	.. 9-6-26
"W" do.	..	..	—	—	—	1	—	.. 2-9-26
"W" do.	..	..	—	—	—	3	—	.. 6-9-26

EAST DOCK.

"Clarence" Warehouse	..	..	1	—	—	—	C. fasciatus	.. 12-7-26
"York" do.	..	..	—	—	2	1	—	.. 17-9-26
"Clarence" do.	..	..	—	—	—	2	—	.. 4-10-26

VARIOUS PREMISES ON THE DOCKS.

Divers' Lodge, Roath Dock	—	—	—	1	C. fasciatus	.. 29-11-26
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THE TOTAL NUMBER OF EACH VARIETY OF RAT IS AS FOLLOWS:—

Origin				Rattus rattus rattus	Rattus rattus alexan- drinus	Rattus rattus frugi- vorus	Rattus norveg- icus	Totals
Ships				156	38	50	43	287
Warehouses				13	2	10	7	32
Other premises				—	—	—	1	1
TOTALS ..				169	40	60	51	320

COMPARISON OF FIGURES FOR YEARS 1922 TO 1926

Year	Rattus rattus rattus	Rattus rattus alexan- drinus	Rattus rattus frugi- vorus	Rattus norveg- icus.	Totals
1922	53	45	72	3	173
1923	26	14	42	1	83
1924	86	64	61	3	214
1925	131	30	108	17	286
1926	169	40	60	51	320

REMARKS. In his report for 1922, Dr. J. J. Simpson pointed out that the small number of specimens examined in that year precluded any definite conclusions as to the relative frequency of the three varieties of the black rat at Cardiff Docks, but suggested that, if his material was a fair sample of the rats found there, then their order of frequency was (1) *Rattus rattus frugivorus*, (2) *Rattus rattus rattus*, (3) *Rattus rattus alexandrinus*. This conclusion, as may be seen from the above tables, held good also for the following year (1923). But the position is different in 1924, *Rattus rattus rattus* being easily first in point of numbers, *Rattus rattus alexandrinus* second, and *Rattus rattus frugivorus* last. In 1925 and 1926 *Rattus rattus rattus* is again first, *Rattus rattus frugivorus* takes second place, and *Rattus rattus alexandrinus*, as has been the case in every year but one, comes last. So the data for five successive years suggest that sometimes *Rattus rattus rattus*, and sometimes *Rattus rattus frugivorus*, may be the most numerous at the docks, *Rattus rattus alexandrinus* being as a general rule less common than either of the other two.

FLEAS.—Three species of fleas were obtained, viz. :—

Ceratophyllus fasciatus.

Xenopsylla cheopis, "the plague flea."

Leptopsylla segnis (= *L. musculi* of previous reports).

THE TOTAL NUMBER OF SAMPLES* IS AS FOLLOWS :—

Origin	<i>Ceratophyllus fasciatus</i>	<i>Xenopsylla cheopis</i>	<i>Leptopsylla segnis</i>
Ships	23	17	1
Warehouses	5	—	—
Other premises	1	—	—
Totals ..	29	17	1

*The word "sample" throughout this report means one LOT of rats or fleas, not individual specimens.

COMPARISON OF FIGURES FOR THE YEARS 1922 TO 1926 :—

Year	<i>C. fasciatus</i>	<i>X. cheopis</i>	<i>X. braziliensis</i>	<i>L. segn</i>
1922	8	8	—	1
1923	3	9	—	—
1924	6	13	1	1
1925	27	20	—	1
1926	29	17	—	1

PERCENTAGE OF RAT-SAMPLES HAVING FLEAS—
COMPARISON FOR SHIPS AND WAREHOUSES.

Origin	1922			1923			1924			1925			1926			Total No. samples received 1922-26	Total No. samples having fleas	Percentage having fleas
	No. of samples received	No. having fleas	Percentage having fleas	No. of samples received	No. having fleas	Percentage having fleas	No. of samples received	No. having fleas	Percentage having fleas	No. of samples received	No. having fleas	Percentage having fleas	No. of samples received	No. having fleas	Percentage having fleas			
Ships ..	18	8	44.44	11	7	63.64	23	13	56.52	54	35	64.81	49	32	65.31	155	95	61.29
Warehouses	13	6	46.15	10	5	50	16	5	31.25	14	5	35.71	13	5	38.46	66	26	39.24

The above table gives some idea of the comparative frequency of flea-infestation among ship-rats and dock-rats respectively. Making allowance for the smaller number of samples received from the dock-warehouses, the figures still indicate a considerably higher percentage of infestation among samples from ships.

PERCENTAGE OF RAT-SAMPLES HAVING FLEAS—
COMPARISON FOR YEARS 1922-1926.*

Year	Total number of samples received	Number having fleas	Percentage having fleas
1922	31	14	45.16
1923	21	12	57.14
1924	42	19	45.23
1925	71	42	59.15
1926	63	38	60.32

* The figures in this table include samples from sources other than ships and warehouses.

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2. H. McG. Robertson : A Possible Explanation of the Absence of Bubonic Plague in Cold Countries. U.S. Public Health Reports, Vol. 38, No. 27 (July 6, 1923), pp. 1519-1531.
3. A. W. Bacot and C. J. Martin : The Respective Influence of Temperature and Moisture Upon the Survival of the Rat Flea (*Xenopsylla cheopis*) away from its Host. Journal of Hygiene (1924), Vol. 23, No. 1, pp. 98-105.
4. Carroll Fox and E. C. Sullivan : A Comparative Study of Rat-Flea Data for Several Seaports of the United States. U.S. Public Health Reports, Vol. 40, No. 37 (Sept. 11, 1925), pp. 1909-1934.
5. J. A. Sinton : The Indian rat-fleas, with special reference to the identification of the "plague fleas." Indian Jour. Med. Research, 1925 ; 12, pp. 471-478, 2 plates.

TABLE XI. (a). (Form C.)

Particulars relating to vessels "infected" or "suspected" or from infected ports.

NAME OF VESSEL	DATE OF ARRIVAL	Whether infected, suspected or from an infected port.	METHODS OF RAT DESTRUCTION EMPLOYED.			Number of Rats killed.	Whether a certificate of deratisation was issued.	REMARKS.
			Fumigation by Sulphur Dioxide.	Fumigation by Hydrocyanic Acid.	Trapping, poison, etc.			
1	2	3	4	5	6	7	8	9
s.s. "Gredlon "	March 25	Infected port, Alexandria	—	—	—	—	—	No evidence of rat infestation do.
s.s. "Rosedon "	April 9	Infected port. Alexandria	—	—	—	—	—	do.
s.s. "Alleanza "	Aug. 14	Infected port, Sfax <i>via</i> Tunis	—	—	—	—	—	do.
m. "Altenfels "	Dec. 21	Infected port, Calcutta <i>via</i> Aden, Suez and Port Said	—	—	—	—	—	do.
s.s. "Lahore "	Dec. 31	Calcutta <i>via</i> Port Said	—	—	Trapping	Two mice	—	do.

TABLE XI. (b). (Form D.)

Vessels subjected to measures of rat destruction.

Number of vessels fumigated by S.O. ₂	Number of rats killed.	Number of vessels fumigated by H.C.N	Number of rats killed.	Number of vessels on which trapping, poisoning, etc were employed.	Number of rats killed	Number of fumigation certificates issued on Form "Port 10."	Number of other certificates issued.	REMARKS.
23	575 (and 18 mice)	—	—	58	2,179	19	15	—

TABLE XII.

RATS CAUGHT BY RATCATCHER AND DESTROYED.

(a) ON VESSELS.

Number of	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total for Year.
Black rats	390	288	619	418	—	43	—	5	24	15	168	166	2136
Brown rats	—	—	42	—	—	—	—	—	—	—	1	—	43
Rats examined	40	44	56	49	*6	4	—	5	13	1	32	16	266
Rats infected with plague ..	—	—	—	—	—	—	—	—	—	—	—	—	—
Rats not infected ..	40	44	56	49	6	4	—	5	13	1	32	16	266

* After fumigation.

(b) IN WAREHOUSES.

Number of	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total for Year.
Black rats ..	24	35	18	28	46	15	41	21	10	15	32	22	207
Brown rats ..	—	—	—	—	—	8	—	9	19	12	2	—	50
Rats examined	5	10	8	9	5	2	3	1	13	6	2	8	72
Rats infected with plague..	—	—	—	—	—	—	—	—	—	—	—	—	—
Rats not infected ..	5	10	8	9	5	2	3	1	13	6	2	8	72

METHOD OF RAT DESTRUCTION IN THE CITY OF CARDIFF (as distinct from the port):—The method mainly employed in the city is baiting. Baits are regularly laid by sewer men in sewers and on canal banks, while large quantities of poison are used on private premises, all this work being done under the supervision of the Department.

PREVENTION AND TREATMENT OF VENEREAL DISEASE

The work of the venereal diseases clinic at the Royal Hamadryad Seamen's Hospital is mentioned here, although it ranks for grant under the venereal diseases scheme and not as a part of port sanitary administration. The clinic is strictly confined to *bona fide* seafaring men, and naturally falls within the province of port administration.

NUMBER OF CASES DEALT WITH AT THE SEAMEN'S CLINIC SINCE COMMENCEMENT,
APRIL 16th, 1917.

Years.	Number of persons attending for the first time.	Total attendances.	Aggregate No. of in-patient days.
April, 1917	572	7,191	2,692
1918	790	4,361	5,297
1919	972	17,040	6,281
1920	1,234	12,872	4,679
1921	868	12,242	3,352
1922	786	12,856	3,775
1923	821	13,704	3,722
1924	615	16,212	2,697
1925	616	16,008	3,104
1926	565	12,702	2,536
	7,839	125,188	38,135

The decline in cases during the year is probably in great part due to the slump in shipping during the Coal Strike.

Twenty-two cases of venereal disease were reported to inspectors and recommended for hospital treatment. Leaflets relating to the treatment centres (in different languages) are also distributed by the inspectors on arrival.

SCABIES.—During the year nineteen cases of scabies amongst seamen were treated at the corporation cleansing and disinfecting station.

VERMINOUS PERSONS.—Four members of the crew of the s.s. "Sunniside" were sent for disinfestation on account of being infested with lice, crew quarters fumigated and cleansed, together with all their effects.

BUGS.—Vigorous action has been taken for the eradication of bugs which are a constant source of irritation and discomfort in crew's quarters. 101 vessels were reported as being verminous. Upon inspection being made, notices were sent to masters to take steps to eradicate bugs. In most cases, berths, etc., were sprayed with a vermicide, and in others in which there was no time for action, supplies were taken to sea with them. On the return of the vessels investigation was made as to the results and in most cases these have been satisfactory. In cases where they have been unsatisfactory it has been found that the spray had not been used either at all or with sufficient frequency.

Section 3.

MEDICAL INSPECTION OF ALIENS—PORT SANITARY DISTRICT OF CARDIFF.

ANNUAL RETURN.

Aliens arriving at the port*		No. of temporary visitors, i.e., aliens whose stay in this country will not exceed three months.			No. of aliens who intend to settle permanently or remain in this country for more than three months		
Total number	No subjected to medical †inspection	Total number	No. subjected to medical ‡examination	Number of certificates issued	Total number	No. subjected to medical ‡examination	No. of certificates issued
291	—	276	—	—	2	—	—

Aliens in transit			Transmigrants	
Total number	No. subjected to medical ‡examination	No. of certificates issued	Total number	No. subjected to medical ‡examination
13	—	—	—	—

* Number to include all aliens in transit and transmigrants, but not alien seamen.

† The term "Inspection" relates to the preliminary inspection of aliens as they pass before the Medical Inspector.

‡ The term "Medical Examination" relates to detailed medical examination.

PARTICULARS RELATING TO DETAILED EXAMINATION OF ALIENS.

No.

Aliens who were subjected to detailed medical examination and were not certified by Medical Inspector .. Nil

Number of each of the following certificates issued by the Medical Inspector of Aliens:—

- | | |
|--|-------|
| (a) Certificate that an alien is a lunatic idiot, or mentally deficient .. | } Nil |
| (b) Certificate that, for medical reasons, it is undesirable that an alien should be permitted to land .. | |
| (c) Certificate that an alien is suffering from some disease, defect or deformity, which may interfere with his capacity to support himself or his dependents .. | |
| (d) Certificate that an alien is suffering from one of the acute infectious diseases .. | |
| (e) Certificate that, for the purposes of an adequate medical examination, it is necessary for the alien to land in order that he may be examined ashore .. | |

TRANSMIGRANTS.

(See paragraphs 2 and 3 of the additional instructions to Medical Inspectors issued by the Ministry of Health in April, 1921).

Number of certificates of the cleansing of verminous transmigrants given by the Medical Inspector of Aliens to the Immigration Officer ..	} Nil
Number of medical certificates in respect of transmigrants suffering from trachoma, favus, etc., given to the Immigration Officer ..	

PARTICULARS RELATING TO ALIEN TRAFFIC.

Total number of passenger vessels carrying aliens which arrived during the year ..	..	Nil
Number dealt with by Medical Inspector of Aliens ..	..	Nil
Total number of cargo vessels carrying alien passengers which arrived during the year ..	..	37
Number dealt with by Medical Inspector of Aliens ..	..	Nil
Any other vessels in connection with which the Medical Inspector has had to take action in regard to aliens. Give full particulars ..	..	Nil

Section 4.

INSPECTION OF SHIPPING FOR DEFECTS OF SANITATION.

During the year 4,473 vessels with a total tonnage of 3,285,962 were inspected on arrival. The crews carried by these vessels numbered 60,359.

In addition, 3,335 re-inspections were made of ships in dock, making a total of 7,808. Forty-eight written notices were served and 554 verbal orders given to masters in connection with nuisances and sanitary defects on board ships.

Articles of clothing belonging to seamen to the number of 467 were disinfected by the Port Sanitary Authority, and 1,656 dirty and infected beds were destroyed. The lighters carrying grain, patent fuel, etc., in the docks have been periodically examined, cleansed, disinfected and repaired during the year. The fishing boats and fish wharves have been regularly visited, cleansed, and disinfected.

TABLE XIV.

NUMBER AND NATIONALITY OF VESSELS ON WHICH STRUCTURAL DEFECTS AND OTHER
NUISANCES WERE DETECTED

NATIONALITY.	Number of ships																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	Defective side, ports and portholes in forecastles and berths.		Defective water closets		Defective bulkheads and floors in forecastles and berths		Defective and leaky hawse pipes and cable casings in crew spaces		Defective or unlined iron decks over bunks in forecastles and berths		Defective stoves, funnels and flanges in crew spaces		Defective ventilation to forecastles and berths		Defective ventilation to water closets		Dirty water casks and tanks		Defective water casks and tanks		Defective lamps in crew spaces		Defective lighting to forecastles and berths		Defective cowls and ventilators to forecastles and berths		Defective drainage to crew spaces		Leaky decks over forecastles and berths		Foul bulges and peaks		Ship's stores kept in crew spaces		Foul accumulations		Water closets and paint lockers adjoining and ventilating into crew spaces		Dirty store rooms		Dirty forecastles and berths		Dirty water closets		Vermineous forecastles and berths		CASES		REMEDIED																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
American	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

The chief defects found on board ships were:—Defective side ports and prisms, bulkheads, floors, hawse pipes and cable casings, defective stoves, funnels and flanges, ventilator cowls and ventilation, lighting and drainage, leaky decks, defective or unlined iron decks over bunks, causing damp beds, etc., defective lamps, water tanks and casks, also defective water closets.

Very little difficulty has been experienced in obtaining compliance with the requirements of the inspectors.

INSPECTION AND BACTERIOLOGICAL EXAMINATION OF WATER SUPPLIES.

During the year 253 samples of drinking water from vessels were submitted to the bacteriologist and analyst (Mr Sugden), the results of the examinations of which are summarised in the following table.

TABLE XV.

RESULTS OF EXAMINATION OF WATER SUPPLIES.

Number of Samples	Satisfactory	Moderate Purity	Doubtful Purity	Contaminated
253	189	31	16	17

Thirty-three notices were served on masters of vessels having doubtful or contaminated water on board for drinking and domestic purposes as the result of these examinations. All tanks containing impure water were emptied and cleansed, and a fresh supply taken on board.

Section 5.

FOOD INSPECTION.

The following table shows the kinds and quantities of food withheld from human consumption during the year.

TABLE XVI.

DESCRIPTION OF ARTICLES DESTROYED OR OTHERWISE DEALT WITH	TONS	CWTS.	LBS.
Apples	32	15	56
Apricots (canned)	—	4	95
Apricot pulp (canned)	—	1	78
Beef (canned)	—	5	40
Cabbage, Red	2	10	—
Carrots (canned)	—	—	4
Cherries (canned)	—	3	105 $\frac{1}{4}$
Figs (canned)	—	—	7 $\frac{1}{2}$
Fish	1	8	—
Grapes	2	1	8
Lemons	1	17	—
Melons	—	6	—
Milk, Condensed	—	—	25
Milk, Machine skimmed	—	—	16 $\frac{1}{2}$
Onions	3	5	—
Oranges	121	17	84
Pears (canned)	—	8	94
Pine Apple (canned)	—	—	46
Plucks, Pigs	—	—	24
Pomegranates	1	16	—
Potatoes	96	6	—
Raisins	—	1	22
Rice	3	5	55
Tomatoes (canned)	7	16	103 $\frac{3}{4}$
Tomatoes, Raw	—	1	16
Vegetables, Mixed	13	10	—
Wheat	51	16	71
TOTAL	341	19	55

The above table includes articles of food arriving both by coastwise vessels and from foreign. It would be useful to be able to place the figures contained therein against the total imports of food but there is great difficulty in obtaining some of the desired information. The following table shows the quantities of all food arriving *from foreign* only :—

TABLE SHOWING FOODSTUFFS IMPORTED FROM FOREIGN DURING THE YEAR.

TABLE XVII

Articles	Tons	Barrels	Bags	Boxes	Bales	Cases	Miscellaneous
Almonds	—	—	—	40	—	—	—
Apples	—	64,093	81	14,061	—	—	—
Apple Juice	—	—	—	—	—	500	—
Bacon Hams	—	—	—	736	1,788	—	—
Baking Powder	—	—	—	80	—	—	—
Barley, Pearl	—	—	162	—	—	—	—
Beef, Pickled	—	258	—	—	—	—	—
Biscuits	—	—	—	—	—	1 924	301 skips
Bread	15	—	—	9	—	—	—
Butter	—	728	—	3,082	—	—	—
Catsup	—	—	—	—	—	1,750	—
Cheese	—	—	—	54,946	—	—	—
Coffee	—	—	10	—	—	11	—
Confectionery	—	40	—	—	—	89	—
Corn (Popcorn)	—	—	3	—	—	—	—
Currants	—	—	48	—	—	—	—
Eggs	—	—	—	80	—	235	—
Fat, edible	—	422	—	3,571	—	—	—
Fish (canned)	—	—	—	—	—	712	—
Fish, fresh	8,230	—	—	1,248	—	—	—
Fish, salt	—	150	—	—	5	—	—
Flour	150	—	50,558	—	—	—	—
Fruit (canned)	—	—	—	—	—	32,959	—
Fruit, Dried	—	—	—	5,849	—	—	—
Glucose	—	1,277	—	—	—	—	—
Gooseberries	—	—	47	—	—	—	—
Herbs	—	—	1	—	—	—	—
Hops	—	—	—	—	80	—	—
Lard	—	—	—	111,888	—	—	—
Lemons	—	—	—	—	—	4,466	—
Macaroni	—	—	—	1,960	—	—	—
Malt	—	—	477	—	—	—	—
Margarine	—	—	—	11,607	—	—	—
Meat (canned)	—	—	—	—	—	5,874	—
Meat, salt	—	2	—	—	—	—	—
Milk (canned)	—	—	—	—	—	111 997	—
Molasses	—	1	—	—	—	—	—
Oats, Rolled	—	—	—	—	—	35,568	—
Offal	—	231	—	—	—	—	—
Olives	—	3	—	—	—	—	—
Olive Oil	—	—	—	—	—	411	—
Onions	129-7 cwts.	—	8 871	—	—	75,560	5,673 bushels
Oranges	—	—	—	—	—	227,497	—
Pears, fresh	—	5,987	—	1,084	—	—	—
Peas and Beans	—	—	6,803	—	—	—	—
Pork, Pickled	—	850	—	—	—	—	—
Potatoes	34,442	—	29,690	—	—	70	—
Provisions (canned)	288	—	—	—	—	98	—
Rice	—	590	3,977	—	—	—	—
Sago	5 cwts.	—	2,010	600	—	—	—
Salt	—	—	7,379	—	—	—	—
Semolina	—	—	10	—	—	—	—
Sugar	2,441	—	264,850	—	—	6,400	—
Tomatoes (canned)	—	—	—	—	—	25,493	—
Tomatoes, Raw	—	—	—	5,305	—	—	—
Vegetables, salted	—	121	—	—	—	—	—
Vegetables, Dried	—	—	—	—	—	10	—
Vegetables (canned)	—	—	—	—	—	237	—
Vegetables, fresh	56	—	19,851	—	—	115	—
Wheat	148,927	—	—	—	—	—	—
Wine	—	76	—	—	—	—	8 pipes
Yeast Cake	—	—	—	37	—	—	—

FROZEN MEAT LANDED AT THE PORT.

TABLE XVIII.

1926	NAME OF SHIP.	WHERE FROM.	BEEF		MUTTON		LAMB (Carcases)	OFFAL (Bags)
			Quarters	Pieces	Carcases	Bags		
Feb. 8	s.s. "Leitrim"	New Zealand <i>via</i> New York, Glas- gow, Liverpool and Manchester.	2134	—	—	—	—	—
„ 10	s.s. "Port Curtis"	Australia, <i>via</i> London and Antwerp.	6802	982	2000	—	—	200
„ 19	s.s. "Port Napier"	Australia, <i>via</i> Hull, Newcastle and London.	500	—	2000	—	3002	—
April 18	s.s. "Piako"	Australia, <i>via</i> London and Liver- pool.	1200	—	1144	—	4255	—
„ 32	s.s. "Middlesex"	New Zealand, <i>via</i> Glasgow and Liver- pool.	1010	—	—	—	13500	—
„ 24	s.s. "Port Sydney"	Australia, <i>via</i> Dunkirk, Hull, Antwerp and Liver- pool.	500	278	1095	—	9018	—
June 3	s.s. "Turakina"	New Zealand, <i>via</i> Manchester.	400	—	—	—	19518	—
„ 7	s.s. "Opawa"	Australia, <i>via</i> London, Antwerp, Manchester and Liver- pool.	—	—	939	83	12057	—
Dec 5	Mtr. "Eisvogel"	London,	1049	242	—	—	—	—
		TOTALS ..	13595	1502	7178	83	61350	200

Section 6.

INSPECTIONS UNDER THE DISEASES OF ANIMALS ACTS, 1894 to 1926.

(a) THE CANINE ANIMALS ORDER, 1909, AND THE IMPORTATION OF DOGS ORDERS, 1914-26.—During the year ended December 31st, 1926, 430 dogs were imported from foreign countries by ships, either directly or indirectly.

These ships were visited regularly during their stay in port to see that the requirements of the orders were carried out.

(b) FOREIGN ANIMALS ORDERS, 1910-26.—During the year, ten vessels arrived at the port with the following animals on board from scheduled countries, either directly or indirectly, viz. :—Sheep 2, Goats 21, and Swine 18.—Total 60. These ships were visited regularly to see that the regulations were carried out. When any of the ships left for other ports in Great Britain, the authorities at those ports were notified.

Proceedings against masters for infringements of the orders were taken in nine instances, and fines amounting to £1 5s. 6d., were imposed.

The following table shows the number of cattle landed at the port during the year under the Importation of Canadian Cattle Order of 1923 :—

TABLE XIX.

Date	Name of Ship	Where from	No. of Cattle
April 20	s.s. "Canadian Victor"	St. John, N.B.	120
May 7	s.s. "Canadian Leader" ..	do.	240
" 25	s.s. "Canadian Commander" ..	do.	233
June 7	s.s. "Canadian Mariner"	Montreal <i>via</i> Quebec	234
" 19	s.s. "Canadian Victor"	do.	233
July 5	s.s. "Canadian Leader"	do.	233
Nov. 20	s.s. "Canadian Victor"	do.	227
Dec. 15	s.s. "Canadian Leader"	do.	229
		TOTAL	1,749

Section 7.

ANNUAL REPORT OF S. J. HOLBOURN, CANAL BOAT INSPECTOR, FOR THE YEAR 1926.

Section 3 of the Canal Boats Act of 1884, provides that it shall be the duty of every registration or sanitary authority within whose district any canal or part of a canal is situate, to enforce within such district the provisions of the principal act, and this act, and any regulations made thereunder by the Ministry of Health, and every such authority shall, within twenty-one days after the 31st day of December in every year, make a report to the Ministry of Health as to the execution of the principal act, and this act, and of the regulations made thereunder, as aforesaid and as to the steps taken by such authority during the year to give effect to the provisions of the said acts and regulations.

1.	Canal boats inspected during the year 1926	..	.	74
	Condition of boats, good	..	..	68
	Infringements	..	..	6
	Occupants of boats	..	..	All males
	Women and children sleeping in Canal boats	..	..	Nil

2. Infringements :—

(a) Registration	..	..	..	Nil	(4) Any other steps taken to secure compliance with the acts and regulations? Yes, verbal notices.
(b) Notification, change of master	..	..	..	Nil	
(c) Certificates	..	..	..	Nil	(5) Detention of boats for cleansing and disinfecting
(d) Marking	..	..	..	Nil	..
(e) Overcrowding	..	..	..	Nil	..
(f) Separation of sexes	..	..	..	Nil	13
(g) Cleanliness	..	..	..	Nil	(7) Number of boats registered during the year 1926 :—
(h) Painting	..	..	..	6	(a) Motor propelled boats
(i) Ventilation	..	..	..	Nil	..
(j) Water vessels	..	..	..	Nil	(b) Other boats, rendered necessary by alterations and change of owners
(k) Removal of bilge water	..	..	..	Nil	..
(l) Notification of infectious diseases	..	..	..	Nil	(8) Removal from register
(m) Admittance of Inspector	..	..	..	Nil	..
(n) Defective stoves	..	..	..	Nil	(9) Number of boats believed to be in use or serviceable :—
(o) Roofs leaking	..	..	..	Nil	(a) Motor propelled boats
(p) Boats leaking	..	..	..	Nil	..
(3) Legal proceedings taken in respect of infringements	..	..	..	Nil	(b) Not propelled by motor
					..
					13
					(10) Number of boats that cannot be traced
					Nil
					(11) Boats with accommodation for two males
					13
					(12) Boats with accommodation for three males
					..
					..
					Nil

The sanitary condition of the boats is on the whole satisfactory.









